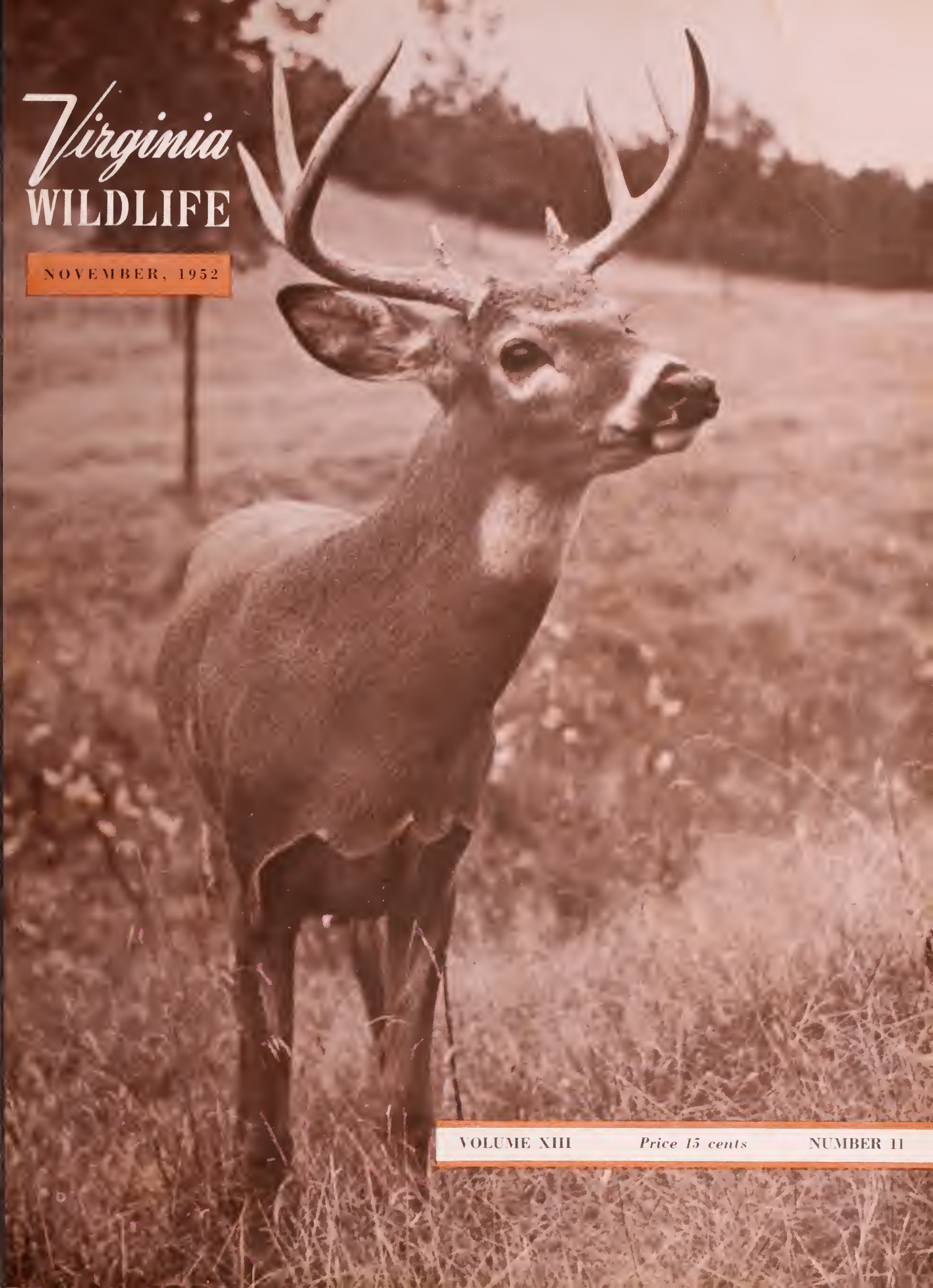
Virginia WILDLIFE

NOVEMBER, 1952



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"Too Young To Hunt"

Commission photo by Kesteloo

Virginia WILDLIFE

Published by VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES, Richmond 13, Virginia

A Monthly Magazine Dedicated to the Conservation, Restoration, and Wise Use of Virginia's Wildlife and Related Natural Resources, and to the Betterment of Hunting and Fishing in Virginia

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VOLUME XIII NOVEMBER, 1952 No. 11

In This Issue

	Page
Hunting Accidents	4
Opportunities for Hunting in Virginia	5
The Potomac	8
Wildlife, Fire Control and Co-operation	10
Hunting Law Digest for 1952-53	12-13
Preparing Winter Cafeterias for Wildlife	14-15
The Bald Eagle	16
Think Before You Shoot	18
Your *New* Game Warden	20
Field Force Notes	23
Drumming Log	24
Questions and Answers	26

Cover

A lordly buck poses his trophy head for the suspicious camera. What a welcome sight for many Virginia hunters this November.

OPL Photo by John G. Roberts

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Hunting Accidents

STATISTICS on accidental deaths and accidental injuries show that between Pearl Harbor and June 1, 1945, more people were killed and maimed in the United States than occurred to our military personnel during World War II. A total of 34,300,000 accidental injuries clearly shows that the American people are an inherently careless citizenry.

These accidents, of course, occurred everywhere—in the homes, on the highways, in our factories, and in our great outdoors. (We had over 1,000 deaths on Virginia highways last year.) Everywhere, too, the basic causes behind these deaths and injuries were essentially two human failings: thoughtlessness and carelessness.

Each hunting season, game departments the country over are haunted by the spectre of more gunning accidents—and are almost powerless to do anything about it. Last year Virginia had 13 fatalities and 15 non-fatal injuries (See article in this issue *Think Before You Shoot*). While not an alarming figure, to be sure, considering that some 300-400 thousand gunners take to the woods and fields and blinds during the hunting season, it is a tragic waste of human life, not counting the added suffering to the maimed. Yet these things will occur again and again unless we—all of us—learn the meaning of better personal discipline; unless mass education forces us into a greater safety consciousness.

Personal discipline when handling guns that kill is the one great answer to better hunting safety. This means personal discipline to see that a dangerous weapon is not taken into the field in the first place if it is in poor condition; it means personal discipline to eliminate situations that hunters place themselves into that make it dangerous for themselves or their fellow hunters; and it means personal discipline to eliminate errors in poor judgment by better thinking.

If hunters will *think* to inspect their guns and ammunition before going afield, if they will always *think* of their gun as a death weapon, if they will always THINK before they fire, it is reasonable to expect that 90% of our gunning accidents could be eliminated.

Looking at the whole problem of hunter-safety we are forced to admit that no state yet has found "the one solution." Where good progress has been made we find that education and training hold the key to an intelligent approach to the whole question. Only by more education and deliberate safety training can we ever hope to make ourselves fully gun conscious or raise the coming generation with gun safety appreciation. That is the position of your Game Commission. If safety consciousness is to come and be a part of us, education and training must be the guiding light.

Ask Yourself

CAN we do without wildlife? Are wild creatures essential to our day-to-day existence? Is it important that we be concerned about things like flora and fauna and biota in an era of split atoms and hydrogen bombs?

There are some folks who can do without wild things, and some who cannot. I, for one, prefer to be associated with those who cannot.

Like our crisp, golden November mornings and frosty painted sunsets, wild things were taken as a matter of course until the heavy hoof of civilization began to do away with them. Today we face a paradoxical future. There are those in the minority who seek to answer the question of whether a so-called higher "standard of living" is worth its cost in things wild and natural and God-given. For a few, the sight of returning skeins of Canada geese over tidal marshes is more important than watching a show on television, and the chance to find a blue dwarf iris on a mountain-side is as inalienable as our freedom to worship.

This November, as we turn to the graying fields and brown woods in quest of a squirrel or bobwhite or a cottontail, it might be well for us to think about these things. Woods are an ideal place for meditation and have long been associated with man's grasp for culture and added wisdom.

This November, when we saunter into the free, great open outdoors, seeking recreation of mind and body—be it gunning or taking photographs or simply seeking close communion with Mother Nature—let's pause a while longer at the spring or the fallen tree or the living hemlock. Where are we heading? Where lies our future? Ask yourself the meaning of our immense outdoor heritage, and, ask yourself, too, if you are doing your full share to preserve these things for our generation and those that follow. Ask yourself. Your conscience will answer you. —J. J. S.

Opportunities for

HUNTING in VIRGINIA

By JOHN H. GWATHMEY*

WHAT KIND of hunting may be expected in Virginia? The perfect stranger would probably like to get a general idea. A glance at a map reveals a latitude in which mild climate prevails, but that by no means tells the whole story. Neither does the variation in elevation from 5,720 feet to sea level, with alpine varieties of trees on lofty peaks, and the Dismal Swamp supporting semi-tropical vegetation.

The terrain is so widely diversified, from high mountain ranges to flattened coastal marshes, with intervening stretches of hill country—all fertile and abundantly watered. In such differing habitat, one would expect to find wildlife of many forms. The sportsman may indulge his fancy in hunting just about any type of game which he would expect to find in the 36-40 latitudes, with the addition of superlative waterfowl and marsh gunning.

One over-all statement may be made in regard to all of Virginia's game: it is virtually all wild, native stock, indigenous to this area. With the exception of a few scattered ringneck pheasants, no exotic species are found in this state. Mammals and birds are direct descendants of the strains which were here when the white man first landed. Habitat for some of the original creatures has been destroyed and they have disappeared. But the modern hunter has a wide choice of the same game animals and birds which were pursued for centuries by the aboriginal Indians.

Whatever kind of hunting a man prefers, he can find it in Virginia. Big game with high-powered rifle! Wing shooting in the uplands or following the hounds! Marsh hunting for the furtive sora and other rails! Ducks and geese in the great Atlantic Flyway, which funnels down through eastern Virginia and pours thousands of waterfowl into the state every fall! One may find use for just about any type of sporting gun manufactured.

When big game is mentioned, one has in mind the Virginia white-tailed deer and the black bear. While there is a herd of elk in the fastnesses of the great mountain ranges of southwest Virginia, there has been no open season on elk for a number of years. Until recently, Virginia was the only eastern state in which elk were hunted.

While a greater number of deer are bagged in the eastern areas, the sport is usually associated with the mountains, where the two big national forests provide public shooting ground embracing approximately 1,500,000 acres. Laws governing the hunting of deer are different in the two sections of the state, and the methods employed by the hunters are drastically unlike.

Several factors are in the hunter's favor when he goes to the mountains for deer and bear. Deer hunting with dogs is not permitted. Parties divide in staging their drives, or they still-hunt. Any kind of rifle is permitted provided it is not less than 25-calibre. In many of the eastern counties all the deer hunting is done with shotguns for the reason that the counties, fearing danger to innocent bystanders, have outlawed the use of rifles.

Groups of sportsmen planning a big game trip to Virginia's mountains can make their plans with a minimum of trouble. The fact that no dogs are used and most of the hunting ground is within the well-marked national forests virtually obviates the need for professional guides.

The presence of ever-growing herds of deer in the mountains is the result of a spectacular restocking pro-

* "Rod and Gun" editor, *Richmond Times-Dispatch*.

Quail hunting remains a top field sport in Virginia

Commission photo by Shomon

Deer hunting is growing in popularity throughout the state

Commission photo by Kesteloo

gram in the 1930's. Native animals had disappeared from virtually the whole vast area. Brood stocks were established and protected and the herds are steadily building up. Until a few years ago there were no open seasons in most of the counties. There had been no deer to hunt for 50 years. Now there are open seasons in 20-odd counties which furnish suitable range.

Heaviest kills last year were in the counties of Augusta and Bath. Bear hunters also were most successful here. Alleghany, Highland and Nelson were happy hunting areas for the mountain bear hunters. It is permissible to use dogs in hunting bears, which normally means that a stranger must make arrangements with someone who has the hounds. A number of bears are shot each year in the Dismal Swamp, in the southeastern corner of the state.

Deer hunting in the eastern areas differs much from mountain hunting. In almost every case it is on private land, but the deer are numerous. There are hundreds of deer hunting clubs, with shooting mainly on leased lands. They hunt with dogs, on the assumption that you would never be able to get deer to leave the dense marshes without them. Shotguns with buckshot are widely used. The buck law prevails in most counties, but there are some sections in which deer are so numerous that antlerless deer seasons have been declared.

Wild turkeys are becoming more numerous in the mountainous sections because of a vigorous restocking program which is in progress. But the best hunting for these majestic birds is in some of the lower counties. Buckingham, Spotsylvania and Halifax led the rest of the counties of the state last year in legal turkey kills.

The ruffed grouse, tops in the books of many scattergun men, is the bird that furnishes outstanding wing shooting all up and down the Alleghanies and the Blue Ridge. These great game birds, which used to be plentiful throughout the Piedmont section of the state, are now largely confined to the plateaus and open areas among the forest-covered mountains. Grouse hunting is rugged sport, but is often incredibly rewarding.

Both deer and grouse hunting trips into the mountains are easy to arrange and are made mostly on public hunting grounds. Many can see the trend toward great visitations of out-of-state deer hunters in future years. Parties may find ample accommodations and go into the woods and stage their own drives, or stalk the mountain hollows alone. Only a one dollar forest stamp is required in addition to usual licenses to hunt and fish anywhere in the national forests.

A majority of all the upland wing shooting is in the Piedmont and Coastal Plain, with the bobwhite quail far and away the most popular game bird. Quail are found in every county in the state, with habitat most to their liking in the broad areas from the mountains to the sea. Good dogs are essential. The greatest difficulty for the stranger lies in the fact that almost all quail hunting is on privately-owned lands.

The same is true with cottontail rabbits which are hunted assiduously all over the state, usually with the assistance of beagles or other trail dogs. Squirrel hunting also is popular almost everywhere. While it is necessary to get written permission to hunt on posted lands, it is seldom much trouble for the gentleman hunter to obtain such permission.

Dove shooting has become an increasingly popular sport in Virginia's uplands. The birds flock in the fields in large numbers in early fall and parties of hunters surround the fields where they are feeding. Doves, when flushed in the midst of their afternoon feeding, continue to return in small groups and furnish highly sporty shooting. A sizable number of woodcock are bagged each year, usually while engaged in hunting quail or rabbits.

While the crow is not regarded as a game bird, hunting crows is rapidly becoming a major sport. Some of the hunters become expert in calling crows and are able to bring them into their blinds in great numbers. The gang instinct of crows leads to their undoing, and gunners frequently shoot until their gun barrels are hot.

Along with the usual forms of upland hunting, there are excellent numbers of wild turkeys in many areas, and there are many men who confine their hunting to these great birds. Perhaps a majority of turkeys are brought within gun range by flushing and scattering the flocks, then building blinds and calling them when the birds follow their natural instinct to reassemble.

In addition to the many forms of gunning which are

Old bushy-tail is still a favorite with most hunters

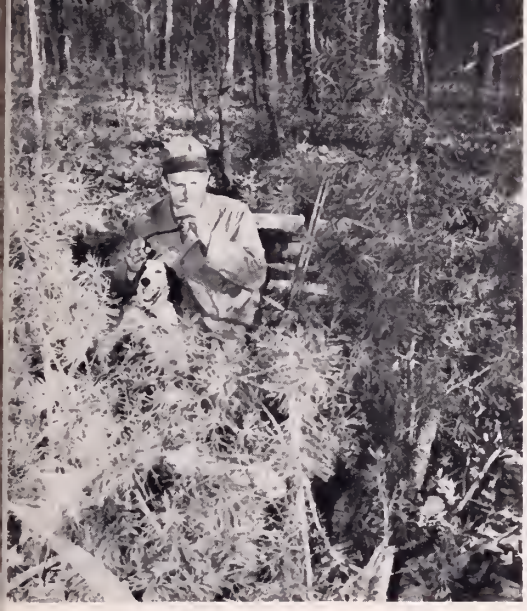
Commission photo by Shomon

Fox hunting is traditional in Virginia

V.S.C.C. photo by Flournoy

Rabbit hunting has always been a fascinating pastime

Commission photo by Shomon



Outwitting the wild turkey still intrigues many hunters

Rail shooting in Virginia's eastern marshes is fascinating sport

Waterfowl gunning attracts many Virginia hunters each season

Commission photos by Shomon

popular in upland Virginia, there are thousands of devotees of the chase. While there are many regularly-organized fox-hunting clubs, where riding to the hounds is carried on in traditional fashion, there are even more numerous fox hunters who keep hounds and make fox hunting their principal sport.

Beagle clubs are becoming increasingly numerous and there are many fine packs in the state, but the majority of rabbit hunting is done by owners of one or more hounds. They chase the cottontails regularly and regard this as the finest of sports. It also is true that there are surprising numbers of night hunters, who go into the woods after raccoons and opossums with dogs and lanterns.

Marsh hunting for sora and clapper rails can be said to be almost unique in this territory. It is certain that these delectable pursuits are engaged in to a greater extent in Virginia than in any other state. The marshes lend themselves to this type of hunting and the birds are almost invariably plentiful.

Methods for hunting sora of the fresh water marshes and clapper rail in the salt water areas are essentially the same. All of this shooting is done at high tide. The gunner sits or stands in the bow of a shallow-draft boat propelled through the marshes by a "pusher" with a long pole. The birds get up ahead of the boat.

Sora shooting has been a popular sport since earliest times, especially in the marshes controlled by the old, and in many cases expensive, waterfowl clubs. The birds come in from the north at night in August and shortly after the opening of the season—usually September 1—they become fat and strong from feeding on the lush wild rice and other seed-bearing grasses. The present daily bag limit of 25 birds assures lots of shooting.

Clapper rails are hunted to some extent on the mainland, but most of the hunting for these large rails is in the two counties of Virginia's Eastern Shore. Here there are vast stretches of ungranted marsh lands, open perpetually to public shooting. The daily bag limit is 15 birds, and superlative shooting is provided when the gunner is fortunate enough to plan his hunt in periods of really high tides.

Few sections of the country provide better waterfowl gunning than Virginia, where the entire Atlantic Flyway funnels down through the state, pouring vast numbers of ducks and geese into the marshes every fall. Many of the shooting grounds have been nationally famous down through the years.

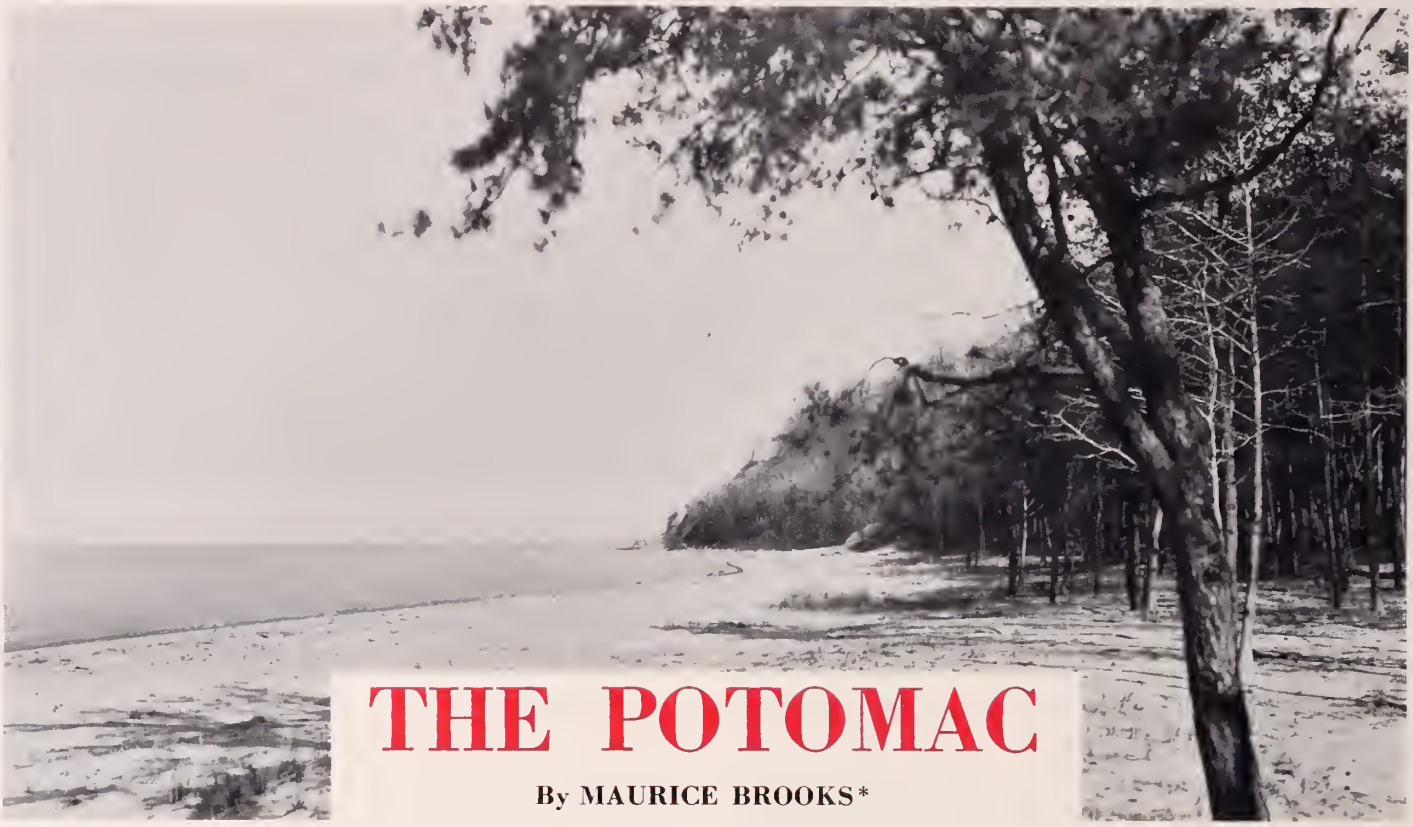
All of the varieties of ducks of eastern America visit Virginia, and great swarms of Canada geese do most of their wintering within the state. The Canada honkers are the only geese shot in this flyway. There is an open season on brant. The only known flock of greater snow geese in existence winters here, but these birds are protected by law.

As a general proposition, the diving ducks are found mainly close to salt water or in the brackish areas of the state's wide tidal rivers. In the interior, swarms of dipping ducks visit the fresh-water marshes, providing incredible blind and jump shooting. Feeding grounds for the two kinds of ducks frequently overlap, flights of canvasbacks, redheads or scaups often coming in to mallard and black duck decoys.

While perhaps most of the shooting is from blinds—river blinds, point blinds or marsh blinds—with sets of appropriate decoys, a great many ducks are shot while paddling the creeks and sloughs in a popular form of hunting which in Virginia is spoken of as "jump" shooting. Many black ducks, mallards, pintails and widgeon are bagged in this way.

Taking the state as a whole, it is remarkable that such excellent hunting is available, for such an endless variety of native game birds and animals. Many outsiders come into the state every year for the hunting, and a goodly number buy property and make Virginia their permanent home because of the hunting opportunities. But what is more important, the hunting in its various forms provides wholesome recreation and contentment for at least a half million Virginia people who go afield time after time every year.

With tremendous potentialities for expansion of the state's game resources, an alert and aggressive State Game Commission is waging an active and intelligent campaign to maintain and increase the supplies of the various species of game in order that there may always be good hunting in this state.



THE POTOMAC

By MAURICE BROOKS*

Photos courtesy V.S.C.C.

THE COMMONWEALTH of Virginia has three rivers of destiny, the James, the Rappahannock, and the Potomac. Along these, early settlements were made and broad acres were cleared for the culture of tobacco. Over their waters the all-ruling tobacco crops moved to seaboard for shipment to Europe. Great estates with baronial mansions soon appeared, and from these came scholars, statesmen, soldiers, and patriots, men whose names loom large in the history of Virginia and of the nation.

Of the three rivers, the Potomac has been, pre-eminently, Virginia's gateway to the West. In a larger sense, it has been a western pathway for the whole Mid-Atlantic Seaboard, since the river cuts its way through mountain ranges to find its sources high in the Alleghenies. Men who have dwelt along its banks, and have explored its reaches, have been led toward a continental viewpoint, so vital to the development of a new nation.

Along the Potomac, George Washington's father managed the Principle ironworks, which, by natural progression, moved westward until it flowered in the great industrial complex of Wheeling Steel. Peter Jefferson, father of a more illustrious son, penetrated the wilderness to Potomac sources to plant the Fairfax Stone, a boundary marker for the vast Fairfax lands, and later the dividing point between Virginia and extreme western Maryland. As a boy, George Washington found his first job as a surveyor of new lands along Potomac tributaries.

These upper reaches of the Potomac became familiar territory to many Virginians during the troubled days of the French and Indian Wars. The Virginia regiment, under Washington's leadership, marched with Braddock's proud British regulars up the Potomac and across the mountains to an ill-fated field near Fort Duquesne. One of Washington's dreams was a canal which would link tidewater at the Falls with the Ohio. This canal was built up the main stream and its North Branch to Cumberland. It is now being restored as a national park project.

When early railways were seeking a route westward, the Baltimore & Ohio chose a course up the Potomac and over the ranges. Thus, it became the first to reach the Ohio, binding with steel rails the mid-continent to the Atlantic Seaboard. For many miles the National Road follows along or near the Potomac. Near Shepherdstown James Rumsey demonstrated the first boat to be propelled by steam, although he did not live to receive the fruits and honors of his invention.

The waters of the Potomac have not always flowed untroubled to the sea. Indians from the western country found the river a convenient travel artery for raids against hapless settlers. Fanatical old John Brown chose Harper's Ferry, where the river cuts through the Blue Ridge, as the point of entry for his fantastic invasions of the South. At nearby Charles Town he paid the full penalty, while Governor Henry Wise, Robert E. Lee, J. E. B. Stuart, and John Wilkes Booth looked on. In the War Between the States, "Stonewall" Jackson had one of his major triumphs at Harper's Ferry. Lee's men crossed the river as a frontier on their invasions of the North, and behind its friendly waters the Army of Northern Virginia recouped to fight again after Antietam and Gettysburg.

Those who know only the broad tidewater stream

* Mr. Brooks is Professor of Wildlife Management at West Virginia University and a member of the West Virginia Conservation Commission.

below the Great Falls would have difficulty in recognizing the Potomac along its upper reaches. Here it is a turbulent, and often violent river, cutting through mountain ranges, rushing over rocks, and, sad to relate, carrying away its share of good fertile topsoil. Most of its principal tributaries enter the main stream from the South. At Harper's Ferry it is joined by the beautiful Shenandoah, prime river of the upper Shenandoah Valley. The Cacapon, beloved of bass fishermen, enters the parent river at Capon Bridge. At Green Spring the Potomac becomes two branches, the North Branch heading at the Fairfax Stone, and the South Branch, a longer and more impressive stream, finding its sources in the spruce forests of the high Alleghenies.

Potomac headwaters, hundreds of miles of them, are natural brook trout water. Fed by cold springs and sheltered by towering forests, these offered, before man's inevitable interference, some of the finest sport fishing in the East. Through the agency of numerous hatcheries, and with the help of intelligent fish biologists, they still lure a multitude of anglers. Rainbow and brown trout, along with the native species, are planted by the thousands each season.

For the fisherman, however, the Potomac has won its greatest fame as a bass stream. The Potomac, the Shenandoah, the Cacapon, and the South Branch are names to reckon with wherever bass fishermen gather. And here is a curious story: originally there wasn't a single bass in the entire river system! None of the three black bass species was native to the rivers of the Mid-Atlantic Seaboard. To tell of how they were brought to the Potomac, I cannot do better than to use the words of Brian Curtis:

"He (the black bass) was not to be found in the New England and Middle Atlantic states, and in the days of slow travel it was impossible to transport him. At that time there lived a gentleman named William Shriver who could not get over the fact that a careless god had done everything imaginable to make the Potomac a paradise for black bass, and had then neglected to put any of the species in that body of water. When the Baltimore & Ohio Railroad was completed across the Alleghenies, the event had one significance to Mr. Shriver: man had provided the link which nature had omitted. He procured a large bucket, punched it full of holes, filled it with bass, and then hung it in the water-tank of the locomotive while the train puffed down to the shores of the Potomac. There he released his fish, and there have been black bass in the Potomac ever since."

Certainly Dr. Curtis is right in saying that the upper Potomac was designed by nature as a paradise for black bass, particularly the smallmouth species. There are innumerable sandy and gravelly banks for spawning. Natural food of all sorts—minnows, rough fish, crayfish, and insects—is abundant. There are many deep, spring-fed pools where fish may lie in warm weather. Since it drains a limestone country, there are essential minerals in the water.

Any old Potomac bass fisherman will tell you that "fishing ain't what it used to be." Once the dense headwaters forests caught the rainfall and released it slowly enough to maintain fairly steady flow. With the deforestation of the ridges, runoff is now very much more rapid. Destructive floods have become almost commonplace. The effects of drouth are much more noticeable. Inevitably, a great deal of siltation has taken place. There is considerable industrial pollution, although fortunately many of the headwaters are outside the soft coal region. Undoubtedly, with the coming of good roads and quick transportation, fishing pressure has increased manyfold.

One has to see these Potomac flash floods, or to see the effects of them, to believe them. Three years ago on the headwaters of the South Branch there was a measured rainfall of 12 inches in one 30-hour period. Steep mountain slopes gave way in slides that were reminiscent of glacial scars. Stream beds were choked, scoured out, and generally played hob with. Naturally, this didn't do the fishing any good.

Perhaps the greatest factor in depleted fishing is one which sportsmen frequently overlook. During hundreds of thousands of years forest floors at the headwaters of

(*Continued on page 22*)

The "falls" of the Potomac above Washington are noted for their recreational value and picturesque beauty

Boating and fishing on the lower Potomac continue as important pastimes almost the year-round

Fire Control, Wildlife *and* *Co-operation*

By

B. A. EGER

Commission photos by Kesteloo

ALTHOUGH THIS article is confined to the Pedlar Ranger District, where I served for 12 years as district ranger, the co-operation covered is similar to that which exists on all districts of the George Washington National Forest.

There has existed in Virginia for over a decade a co-operative wildlife agreement between the U. S. Forest Service and the Virginia Commission of Game and Inland Fisheries for the mutual management of wildlife activities in game and fish on the Virginia national forests. Mostly it has to do with environmental development and improvement for cover, food and protection. The work is paid for out of state funds obtained from the one dollar national forest stamp required by the state to hunt or fish on national forest land, matched with Pittman-Robertson federal funds prescribed by law. The work is planned and done by wildlife game managers and their laborers under the joint supervision of Virginia state game technicians and the district rangers, plus guidance from the Game Commission's staff and the forest supervisor's staff.

Most county game wardens are also forest fire wardens, and they have FM radios in their cars for quick communication about fires and game violations

Key to forest protection is fire control

These wildlife project crews average a game manager and two laborers. Each ranger district has two or more of these crews. In addition, the state has a county game warden in each county and he in turn may have one or more deputy helpers. To supplement the work of these law enforcement men there are a number of state "roving" game and fish law enforcement officers.

With three or four counties within the ranger district of the national forest this group of Pittman-Robertson workers plus the state game law enforcement men make a sizable and important part of the forest ranger's fire control organization. Most of the county game wardens are also state forest fire wardens. Nearly all of them now have FM radios in their cars that hook up with the county sheriff's office and his police officers' cars. The sheriff's office by radio or teletype is hooked into the Virginia State Police network. The ranger's wildlife crews carry portable radios that can communicate with the national forest fire towers and so in to the fire control dispatcher at the ranger office.

All of this by prearranged co-operation and planning gives an efficient network of men over the district for the dissemination of prevention education; enforcement of the state brush burning and forest fire laws; detection, reporting and investigating smoke; and in the case of larger fires and emergencies, taking part in the suppression and augmenting the communications system on and

around the fire. The wildlife project crews carry a complement of fire suppression equipment and tools and have a definite part and responsibility in the ranger's fire control organization. All of these men are important in the co-operation they perform for fire prevention contacts among hunters and fishermen when they are afield during the open season which is usually at the time of high risks and hazards.

Another cordial and co-operative situation also exists between the Virginia state forest service and the U. S. Forest Service. The areas of state and federal responsibility in and around the ranger district are definitely agreed upon and shown on maps. However, the officers of both agencies work hand in hand in the matter of detection, reporting and suppression of fires. The nearest and most available organized wardens and crews are dispatched to a fire and both agencies co-operate in suppression. If the fire is confined to the state area they pay for suppression and make their own report on the fire. If the fire is on the national forest protective area

Top Photo:
When woods burn everything suffers. Not only are watershed values destroyed and soil exposed but the loss of timber and wildlife is great
U.S.F.S. photo

Bottom Photo:
Sights like this are common following a forest fire. Besides direct loss to wildlife, there is also untold damage to food, cover and nesting places
S.C.S. photo

Commission photo by Kesteloo

The primary objective of the co-operative agreement between the Game Commission and the U.S.F.S. is environmental improvement for wildlife

or goes from state to national forest, we pay for the suppression and make the 929 report. Most of the state county fire wardens have a pickup with pump, hose and suppression tools. They also have radios that tie in with the sheriff's office and with each other. When necessary all of these facilities are pooled with the national forest facilities for prevention, law enforcement, detection and suppression. Many of the Virginia counties now have a county fire truck of the city type authorized and purchased by the county board of supervisors. While these fire trucks are primarily for burning buildings they go on call to all grass and woods fires that can be reached and they frequently suppress fires in their incipient stages. Some of these trucks are equipped with radio.

For its own organization the Pedlar District has a widespread system of national forest wardens, about 30 crews with a mobilizing potential of 250 men. School boys in nearby high schools are organized and trained jointly by state and federal officers. The colleges and military institutions adjacent to the district co-operate by furnishing manpower that is organized and trained by the district ranger. These forces are available to the state district foresters if needed. The fire departments of the towns and cities adjacent to the ranger district have organized and trained forest fire suppression crews and have frequently been instrumental in suppressing fires in the fields and adjacent woods and near their municipal boundaries.

Thus, the State Game Commission, the Virginia Forest Service, county supervisors, state educational institutions, municipal agencies and local citizens together with the U. S. Forest Service co-operate to organize and equip a fire control force to protect all woodlands and forests within their sphere of activity. As a result, the yearly average of fires is going down and the average acres-per-fire is decreasing. Besides, such a coverage of equipment and men in the field has a salutary effect on potential risks. The national forest fire prevention campaign with state co-operation, press releases and radio broadcasts has helped considerably in making the public more fire prevention conscious.

VIRGINIA CONDENSED

HUNTING—OPEN SEASON AND BAG LIMITS

(Dates Inclusive)

LICENSE FEES

City resident, to fish	$ 1.00
County resident, to hunt and fish	1.00
State resident, to hunt	3.50
State resident, to fish	3.00
State resident, Big Game Stamp, to hunt bear and deer	1.00
National Forest Stamp, to hunt, trap and fish	1.00
Nonresident, to hunt	15.75
Nonresident, to fish	10.00
Nonresident interstate 3 consecutive days, to fish in interstate impounded waters only	1.00
Nonresident, Big Game Stamp, to hunt bear and deer	2.50
Special Stamp, to hunt bear and deer in Bath, Bland, Botetourt, Buchanan, Craig, Grayson, Giles, Highland, Rockbridge, Smyth, Washington, Wise and Wythe	1.00
Nonresident in Smyth and Wythe	5.00
County resident, to trap	3.00
State resident, to trap	7.50
Nonresident, to trap	50.00

Licenses may be obtained from the Clerks of the Circuit Courts of the counties or the Corporation Courts of the cities and other authorized agents.

Game Tag must be immediately attached at Checking Station to bear, deer and turkey killed (statewide).

Non-migratory game birds and game animals may be hunted from half an hour before sunrise to half hour after sunset.

Game birds and game animals may be hunted with a shotgun, which shall not be larger than 10-gauge or capable of holding more than three shells at one loading (2 shells only in the magazine and one shell in the barrel) or with bow and arrow; or with rifle.

Unlawful (statewide) for any person to hunt with firearms while under the influence of alcohol, brandy, rum, whiskey, gin, wine, beer, lager beer, ale, porter, stout or other liquid beverage or article containing alcohol or while under the influence of any narcotic drug or any other self-administered intoxicant or drug of whatsoever nature. Game wardens and sheriffs shall enforce the provisions of this act.

Unlawful (statewide) to hunt or kill deer with a rifle of a calibre less than twenty-five; provided that in the counties of Charles City, Chesterfield, Hanover, Isle of Wight, New Kent, Prince George, Southampton, Surry, Sussex, Nansemond and Norfolk (except that part of the Dismal Swamp in Nansemond and Norfolk counties located as much as 100 yards from any railroad or public highway, and then only when the rifle is used on a stand elevated not less than 15 feet above the ground), it shall be unlawful to use a rifle of any calibre for hunting and/or killing deer.

Unlawful to hunt deer with rifle or shotgun loaded with slugs in King William County.

Unlawful for any person to hunt game in the counties of Appomattox and Buckingham with a rifle larger than a twenty-two (22) calibre.

Unlawful in Caroline County to hunt or shoot any wild bird or wild animal with a rifle larger than twenty-two calibre using in such rifle any ammunition larger than a twenty-two short, twenty-two long, or twenty-two long rifle cartridge. Unlawful to hunt deer in Caroline County with rifle smaller than twenty-five calibre.

Unlawful in Charles City, King George counties to hunt with a rifle of a calibre of more than twenty-two.

Unlawful to hunt or kill any wild bird or wild animal, including any predatory or undesirable species, with firearms or other weapon on Sunday.

Unlawful to hunt deer with dogs west of the Blue Ridge.

Unlawful to hunt or attempt to kill any species of game after having obtained the day's bag limit or the season's limit during any one day of any one season.

Unlawful to occupy any baited blind or other baited place for the purpose of taking or attempting to take any wild bird or wild animal or to put out bait or salt for any wild bird or wild animal for the purpose of taking or killing.

Unlawful to kill or capture any wild bird or wild animal adjacent to any area where a field or forest fire is in progress.

Unlawful to shoot any game bird or game animal from an automobile or other vehicle.

Unlawful to hunt or track woodcock or non-migratory game birds or game animals in the snow (except that deer may be hunted statewide in the snow and bear in counties west of Blue Ridge), either on or off one's own land; provided that landowners may kill rabbits in the snow on their lands for their own personal use, and foxes may be hunted with dogs, but not with guns, in the snow.

Unlawful to hunt, take, capture, possess, transport, ship, sell or to attempt to do any of these things except as specifically provided by law or by regulation of the Commission.

Unlawful to destroy or molest in any way the nests, eggs, dens, or young of any game or furbearing animal or any bird, except under a scientific permit; provided that this shall not apply to any animal or bird defined by law or regulation to be of a predatory or undersirable species.

Unlawful to hunt with either a dog or a gun or be in possession of any firearm (except peace officers and game wardens) in the National Forests during the general closed hunting season.

Unlawful to have gun or rifle with dog in the daytime in the fields, woods or waters of Augusta, Clarke, Frederick, Page, Shenandoah and Warren and in counties east of the Blue Ridge, except in Patrick, during the general closed season, except where migratory game birds, deer, bear and fox may be hunted during other periods; and except as to rabbits and squirrels by landowners upon their own lands.

Unlawful to have in possession loaded firearms on any public highway in Charles City and New Kent counties unless such person is authorized to hunt on private property on both sides of such highway.

It shall be unlawful to shoot a rifle or pistol at wild birds and wild animals on or over the public inland waters of this state or to carry a loaded rifle or pistol on a boat or other floating device on said public inland waters for the purpose of hunting wild birds and wild animals, except when said rifle or pistol is being transported for this purpose from one point to another unloaded.

It is unlawful to shoot any firearm from any boat or other floating device while hunting wild birds and wild animals on the Appomattox River between the mouth of Namozine Creek and Genito bridge or to carry any firearm on a boat or other floating device on said river for the purpose of hunting between the points mentioned, except when such firearm is being transported unloaded.

It is unlawful to have in possession any shotgun or rifle for the purpose of hunting wild birds or wild animals on the water areas, including shores of the sea, in Accomack, Northampton and Princess Anne counties during the closed season on migratory game birds, provided, that this shall not apply to persons holding permits granted by the Executive Director of the Commission authorizing the same, or to persons engaged as officers of the peace, while actually in the performance of their duties as such. For the purpose hereof the word "possession" shall include having a gun for the purpose of hunting wild birds or wild animals in one's boat or other conveyance while in the above mentioned areas.

It shall be unlawful to shoot any firearm at wild birds or wild animals from any boat or other floating device on the waters of Blackwater River, Somerton Creek and Nottoway River from Monroe Bridge to the mouth thereof, and Lawns Creek dividing Isle of Wight and Surry counties beginning at Mills Bridge thence northeast six miles to the James River, or to carry any firearm on a boat or other floating device on said waters between the points aforesaid for the purpose of taking wild birds or wild animals, except when such firearm is being transported directly across the said waters unloaded for the purpose of hunting during the open season for hunting deer in that section.

It shall be unlawful to shoot any firearm at wild birds or wild animals from any boat or other floating device on the waters of the Nottoway River in Sussex County, or to carry any firearm on a boat or other floating device on the said waters for the purpose of taking wild birds or wild animals except when such firearms are being transported directly across the said waters unloaded for the purpose of hunting during the open season in that section for the taking of upland game.

Unlawful to hunt furbearing animals in any county in the daytime with firearms, except during the general open season for hunting game birds and game animals in the county.

Unlawful to smoke out raccoons from dens or to fell, cut, mutilate or destroy in any manner any tree which is the den or lair of any wild game in the county of Grayson; or to carry any axe, saw or other tool or instrument used for the purpose of felling, cutting, mutilating or destroying trees while hunting at night in Grayson County.

Unlawful to hunt in Buchanan and Tazewell counties whilst having in your possession any axe or saw, without obtaining prior permission of the landowner.

Unlawful to chase foxes with dogs in Appomattox County on Sunday.

Unlawful to hunt in Arlington County.

Unlawful to use dogs for hunting bear, foxes and bobcats during open season, for hunting deer in Alleghany, Augusta, Bath, Botetourt, Clarke, Frederick, Highland, Page, Rockbridge, Rockingham, Shenandoah and Warren counties, and within the National Forests boundaries.

Unlawful to hunt from power boat.

OPEN HUNTING SEASONS AND BAG LIMITS

When open date for any species of game bird or game animal falls on Sunday, hunting will not be permitted until following day.

QUAIL, RABBITS, GROUSE, TURKEYS*, PHEASANTS*:

West of Blue Ridge and on National Forests	November 17-January 5
East of Blue Ridge	November 20-January 20

***Turkeys:**

Closing Date—

Alleghany, Augusta, Bath, Botetourt, Frederick, Highland, Page, Rockbridge, Rockingham, Shenandoah, Warren and that section of Amherst and Nelson counties lying west of the Blue Ridge	December 5
Culpeper, Fauquier and Orange counties	December 31

Unlawful to hunt turkeys in Bland, Buchanan, Carroll, Clarke, Craig, Dickenson, Floyd, Franklin, Giles, Gloucester, Grayson, Greene, Henry, Lancaster, Lee, Madison, Mathews, Montgomery, Middlesex, Norfolk, Northumberland, Patrick, Pulaski, Rappahannock, Richmond, Roanoke, Russell, Scott, Tazewell, Smyth, Washington, Westmoreland, Wise and Wythe counties.

***Pheasants:**

Unlawful to hunt in Madison County and in the magisterial districts of Falmouth, Hartwood and Rockhill in Stafford County.

BAG LIMITS:

Quail, 8 a day, 125 a season; Rabbits, 6 a day, 75 a season; Grouse, 3 a day, 15 a season; Turkey, 1 a day, 2 a season; Pheasant, 4 a day, 20 a season.

Exceptions:

Turkey—bag limits in Alleghany, Augusta, Bath, Botetourt, Charles City, Fauquier, Frederick, Highland, James City, New Kent, Page, Rockbridge, Rockingham, Shenandoah, Warren, and that section of Amherst and Nelson counties lying east of the Blue Ridge Mountains, 1 a day, 1 a season.

DEER

It is lawful to kill male deer in any county of this state where there is an open season, with antlers visible above the hair.

HUNTING LAWS

1952 - 1953

Unlawful to hunt with dogs in Nelson County lying west of the Southern Railway tracks.

When deer are found doing substantial damage to crops or orchards, game warden may issue to owner permit to kill such deer when in act of doing damage. Carcass of deer so killed must be turned over to game warden for delivery to a charitable institution or hospital.

OPEN SEASON:

East of Blue Ridge . . . . . November 20-January 5
West of Blue Ridge . . . . . November 17-22

Exceptions:

Amherst, Nelson and Rappahannock . . . November 17-22
Princess Anne, Norfolk and in that portion of Nansemond County lying east of a line as follows: beginning at a point on State Highway No. 10 where it intersects the Isle of Wight county line, thence along such highway to its intersection with the corporate limits of the city of Suffolk; thence easterly, southerly and westerly with such corporate limits to their intersection with State Highway No. 32; thence along such highway to its intersection with State Highway No. 37; thence along State Highway No. 37 to the North Carolina line . . . . . October 1-November 30
Isle of Wight and in that portion of Nansemond County to the west of the line established in the foregoing paragraph . . . . . November 10-January 5

Unlawful to hunt deer in the following counties: Arlington, Bedford, Bland in that portion north of Wolf Creek and east of Highways No. 21 and No. 52; Buchanan, Campbell, Carroll, Clarke, Dickenson, Fairfax, Fauquier, Floyd, Franklin, Giles in that portion west of New River, Greene, Henry, Loudoun, Lunenburg, Madison, Montgomery, Northampton, Nottoway, Patrick, Pittsylvania, Prince William, Pulaski, Roanoke in Haven's Refuge, Russell except in that portion lying on the southside along north of Clinch Mountain bounded on the east by U. S. Highway No. 19 from the Washington County line going north to Moccasin Creek Road No. 676 following this number west to where it intersects No. 679, following No. 679 west to where it intersects No. 613 following No. 613 to Scott County line, during the open season for hunting deer west of Blue Ridge Mountains, Tazewell in that portion north of Clinch Mountain.

Closed season on doe deer, except it shall be lawful to take deer of either sex on last day (November 22) of the open season in the counties of Augusta, Bath, Frederick, Rockingham, Shenandoah and that portion of Warren County located west of the South Fork of the Shenandoah River and south of State Highway No. 55.

BAG LIMIT:

One deer a season except as follows: Amelia, Charles City, Chesterfield, Dinwiddie, Greensville, Isle of Wight, James City, Nansemond, New Kent, Norfolk, Princess Anne, Southampton, Surry, York, 1 a day, 2 a season. Caroline, Essex, Halifax, King and Queen, 1 a day, 2 a season, one of which may be a doe. Sussex (either sex), 1 a day, 2 a season. Prince George, lawful to take deer of either sex in the Brandon Magisterial District during last 15 days of the open season for taking same.

It shall be lawful to take deer of either sex within the boundary of the Naval Mine Depot property in York County during the open season for the taking of deer.

BEAR

OPEN SEASON:

West of Blue Ridge . . . . . November 17-January 5
East of Blue Ridge . . . . . November 20-January 5

Exceptions:

Bland . . . . . October 15-January 5
Princess Anne, Norfolk and that portion of Nansemond County lying east of a line as follows: beginning at a point on State Highway No. 10 where it intersects the Isle of Wight county line, thence along such highway to its intersection with the corporate limits of the city of Suffolk; thence easterly, southerly and westerly with such corporate limits to their intersection with State Highway No. 32; thence along such highway to its intersection with State Highway No. 37; thence along State Highway No. 37 to the North Carolina line . . . . . October 1-November 30
Isle of Wight and in that portion of Nansemond County to the west of the line established in the foregoing paragraph . . . . . November 10-January 5

To Trap—Statewide . . . . . November 15-December 31

BAG LIMIT: One bear a season (trap and/or hunt).

FOX

OPEN SEASON:

Hunt with Dogs—Statewide . . . . . September 1-August 31

Exceptions:

Fairfax, Fauquier, Loudoun, Rappahannock . . . . . September 1-March 31

Hunt with Gun:

East of Blue Ridge . . . . . October 1-January 20
West of Blue Ridge . . . . . November 17-January 5

Exceptions:

(a) Open season on all National Forest lands . . . . . November 17-January 5
(b) Except in Tazewell where season will close . . January 20
(c) And in Chesterfield, Franklin, Grayson, Patrick, Pittsylvania, and Amelia (Giles District only), season will close . January 31
(d) Owner or tenant may kill or have killed foxes at any time on his own land or land under his control.
(e) Frederick, hunt with gun and/or dog, regardless of snow . . . . November 1-February 28
(f) Lunenburg . . . . . October 1-January 31
(g) Rockingham . . . . . October 1-March 31
(h) Scott, Washington and Wythe . . . October 1-February 28
(i) Buchanan and Rockbridge . . . . Continuous open season
(j) Unlawful to shoot foxes in Albemarle, Amelia (except Giles District), Amherst (except in National Forest area), Appomattox, Campbell, Charlotte, Clarke, Culpeper, Dinwiddie (Darville District only), Fauquier, Halifax (except on regularly organized game preserves), James City, King George, Loudoun, Louisa, Nottoway, Prince Edward and Rappahannock.
(k) It shall be lawful to hunt and/or trap red foxes in Richmond County at any time.

Trap:

Unlawful to trap foxes with steel traps except when done on land by owner, members of his or her household, tenants, or those having permission to do so from the landowner or his or her agent.

OPEN SEASON—Statewide . . . . . November 15-January 31

Exceptions:

Albemarle . . . . . November 1-November 30
Buchanan . . . . . Continuous open season
Nelson . . . . . November 1-January 30
Trapping foxes in Clarke, Fauquier, Loudoun and Rappahannock prohibited.

MINK, OPOSSUM AND RACCOON

OPEN SEASON:

Statewide to hunt . . . . . October 15-January 31

Exceptions:

National Forest areas . . . . . November 17-January 5
Buchanan . . . . . Continuous open season on mink
Statewide to trap mink . . . . . December 15-January 31
Exception: Buchanan County . . . . . Continuous open season
Statewide to trap opossum . . . . . December 1-January 31
Raccoons: Unlawful to trap, except in Charles City, James City, Isle of Wight, Southampton, Appomattox, Amelia, Brunswick, Dinwiddie, Greensville, Lunenburg, Mecklenburg, Nottoway, Powhatan, Buckingham, Prince Edward, Prince George, Surry, Sussex and Cumberland they may be trapped . . . . . December 15-January 31

BAG LIMITS:

Opossum and mink, none.
Raccoon, 3 a day, 20 a season, except National Forest areas, 2 a day, 12 a season.

RABBITS

OPEN SEASON—To Trap . . . . . November 15-January 31

BAG LIMIT: 6 a day, 75 a season.

MUSKRAT AND OTTER

OPEN SEASON:

To hunt . . . . . None
To trap otter . . . . . December 15-February 28
To trap muskrats . . . . . January 1-March 15
No bag limit.

BEAVER

OPEN SEASON:

To hunt . . . . . None
To trap . . . . . By special permit to landowners

SQUIRRELS

OPEN SEASON:

East of Blue Ridge . . . . . November 20-January 20
West of Blue Ridge and National Forest areas . . . . . November 17-January 5

Exceptions:

Accomack, Amherst, Bedford, Henry and Northampton counties . . . . September 15-30; November 20-January 20
Carroll, Franklin and Patrick . . . . . September 15-January 20
Floyd . . . . . September 15-January 20
Scott . . . . . September 15-January 5
Bland, Buchanan, Botetourt, Dickenson, Giles, Lee, Montgomery, Pulaski, Roanoke, Russell, Smyth, Tazewell, Washington, Wise, Wythe . . . September 15-30; November 17-January 5
No hunting on National Forest areas until November 17.

BAG LIMIT: 6 a day, 75 a season.

Trapping squirrels is prohibited.

ELK

OPEN SEASON . . . . . None

NATIONAL FORESTS

Unlawful to hunt with either gun or dog or have in possession or in car any uncased gun or rifle during general closed hunting season. No hunting on National Forests until November 17.

STATE FORESTS

Should there be an open season on any species of game bird or game animal, announcement will be made on or before November 1, 1952.

NATIONAL PARKS

National Parks are wildlife sanctuaries; hunting and possession of firearms in these areas prohibited by Federal Regulation.

STEEL TRAPS

Unlawful to trap with steel traps except when done on land by its owner, members of his household, tenants, or those having permission to do so from landowner or his or her agent.

Unlawful to set steel bear traps in Nansemond, Norfolk and Princess Anne counties.

Note: Should an emergency arise with reference to any species of game bird or game animal during the open season provided herein, the Commission reserves authority to curtail or close entirely the season on such species.

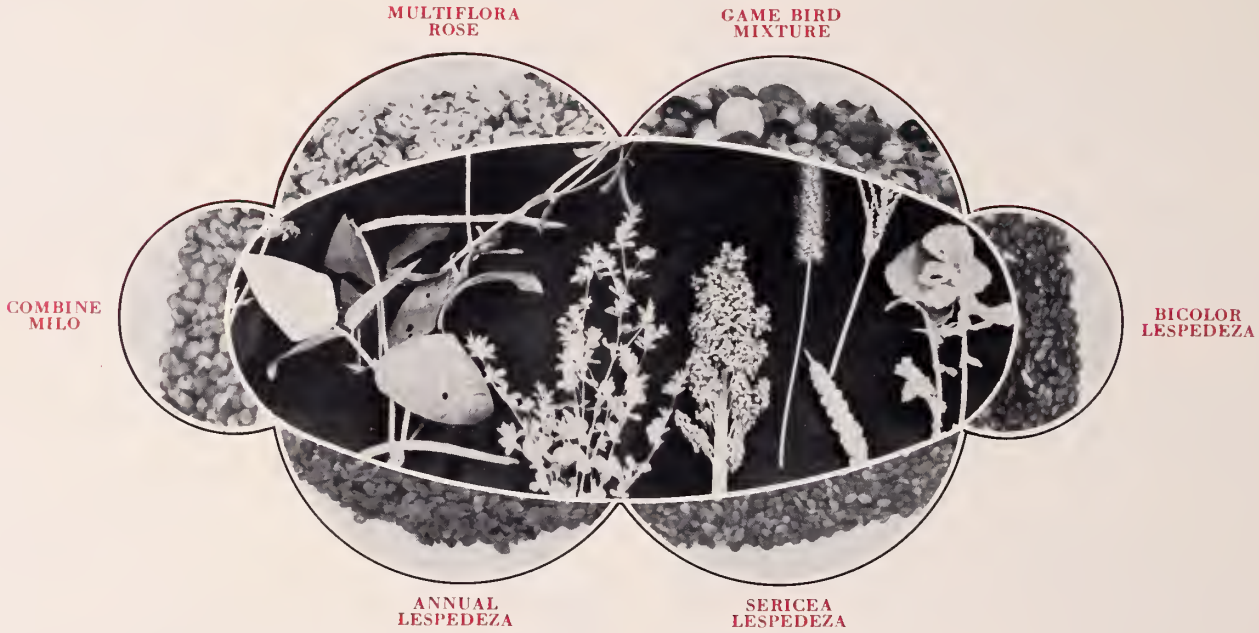
WILDFOWL

Migratory Wildfowl Regulations copies available upon request.

A brief of the Migratory Waterfowl Regulations applicable to Virginia, 1952-1953, appears in the October, 1952, issue of "Virginia Wildlife."

Preparing WINTER CAFETERIAS *for Wildlife*

Commission photos by Kesteloo



Commission's farm game program aims to help wildlife during periods of critical winter weather

Korean lespedeza is a favorite quoil faad. C. H. Shaffer (left) ond warden Conner, Appamottox County, shaw how luxuriont the grawth can be alang waodland edge

A beautiful stand of mixed wildlife seed bearing plonts. This faod potch will feed a covey af quail, many rabbits, same deer ond turkeys. Oak tree left standing is heavily laden with acorns far squirrels

Winter cafeteria with voriety. Nate beautiful stands of bicalar in backgraund, fescue in fare-graund

Waadlond feed patch showing mixed wildlife plontings far turkeys, quail, ond rabbits. Voc-Ag instructor Rice (left) af Bedford shaws farmer Sims value of milo

Millet for quoil. Form game biolagist Harvey (left) and game manoger Newmon inspect heovy seed production an Cumberland State Forest

Ideol spots for winter cafeterias of bicolor ore rovines, depressions, ond oreos of low form productivity

Form game leader, C. H. Shoffer, shows the high productivity of sericeo lespedezo. Plant is fine for sail building ond seed production for game

Aim af oll hobitot improvement work is more faod and cover for game during critical winter weother

The American Bald Eagle and the "Eagle Man"

By

MYRTLE J. BROLEY

Photos courtesy the author and U.S.F.W.S.

The author of this splendid article on the American bald eagle is the wife of a famous retired banker from Canada, Charles Broley, known the country over as "Eagle Man." Broley's field adventures with American eagles are a saga in themselves. Mrs. Broley's new book, "Eagle Man," has just been published. It is a worthy addition to the library of anyone who is interested in the out-of-doors and its creatures.—Ed.

THE BALD EAGLE, emblem of the United States, breeds from Florida to Alaska. The northern birds, those from North Carolina north, are larger than their southern cousins but build smaller nests. According to Charles L. Broley, who has banded 1,200 young of both types, they are quieter, and more easily handled than the others.

How long an eagle lives is one of the questions scientists have not been able to answer as yet. Broley hopes his banding may some day tell the age attained by wild birds still at large. Mr. Richard of Tampa, Florida, kept one as a pet. He had picked it up from the ground when the eyrie in which it was born was blown out of a tree. For 28 years, Jimmy, as he named the bird, led a pampered and happy life in a roomy cage. Mr. Richard died in February, 1951, and Jimmy died the day after. To the surprise of all who knew him, the day before Jimmy died, *he* laid an egg.

The big nests are usually found in pine or cypress trees in Florida. In Ontario, where Broley also bands, he finds that elms are the favored trees. Large strong sticks make up the main part of the structure with a lining of soft grasses, or in the south, of Spanish moss. They are not hollow as some people believe, but firmly built and only slightly concave at the top. Thus, it is possible to glimpse the white head and tail of the incubating parent as she sits on the precious eggs.

In Florida, the eggs are usually laid in November and December, taking 35 days to hatch. In Virginia, they are laid in December and January. Young birds are large enough to band at the age of three weeks. Both parents assist in the task of looking after eggs and young. Indeed, the male is a good mate and father. He brings in quantities of coarse fish as well as half-grown raccoons, rabbits, opossums and snakes.

Broley, who has climbed to some 850 nests, has only twice found evidence of poultry in the nests. Nor has he found any signs that these big birds molest small pigs or lambs. In one of these two eyries he found the heads of two Rhode Island Red hens. He visited the only man in the vicinity raising that breed of poultry and showed him the heads.

This rancher said, "Oh! I know how that happened. Every Saturday I get a few chickens ready for market and as I cross that bridge over there, I toss in the heads and entrails. The gulls swoop on this food. The eagle, to show his supremacy, chases the gulls and makes them hand over. When they drop it, he picks it up and carries it to his nest. In the 30 years that nest has been there the birds have never bothered my chickens."

There are two eggs in a nest, often only one. Late nesters will often have two eggs, but only one hatches. The other is infertile. The eaglets begin exercising their flight muscles at an early age. By the time they are nine weeks old they are practicing flying in the nest, especially on bright, windy days. Their first flights are not out over the meadows, but just above the eyrie. They watch carefully, lest they go too far to one side or the other, dropping down into the nest as soon as they are wearied.

At 11 or 12 weeks of age they leave the nest, though they often return to it for the food which the parents bring them. The young female, as in the case of all eagles, hawks, and owls, is the larger and will weigh even more than her mother when she first flies. At this time she weighs about 14 pounds.

The male being the lighter bird often flies first. He will weigh more than his father, but often less than his

Charles L. Broley shown climbing to an eagle nest. The big nests are usually found in pine or cypress in Florida; in elm mostly in Ontario

A pair of young eagles photographed on the nest. They are 11 weeks old, but cannot fly until they are 12 weeks old

Charles L. Broley, "The Eagle Man," shown with a pet immature bald eagle

mother. The parents continue to bring food to the nest, even when the young are flying about. But they will not feed a bird on the ground. Broley has had a number of young birds, still not able to fly, topple or glide from the nest. He always puts them back, for he knows they would soon perish otherwise.

From the 1,200 eagles he has banded, 1,100 of which were in Florida, he has had 110 recoveries. In other words, almost that many of these fine young birds have been shot by misguided gunners.

Through his banding it was first learned that the Florida eagle goes north in the summer. The very first band return was of a bird shot at Columbiaville, New York. Since then he has had returns from most of the states east of the Mississippi and from Canada.

This northern trek, a reverse migration, is customary with the Florida birds, and they all leave the state during the hot months. The mature birds stay only through July and part of August, then hurry back to claim their territory and domiciles again. The big nests are used year after year unless the trees are cut or something tragic happens to the young. Each year, though, they must be repaired and built up.

Broley thinks the young birds may go right up to the Arctic circle. He has had some very northerly returns to prove it. Of course, eaglets do not get their white heads and tails until they are five years old, nor do they mate until that age.

In Florida, Broley bands in January, February and March. In Ontario his birds are ready in May and June.

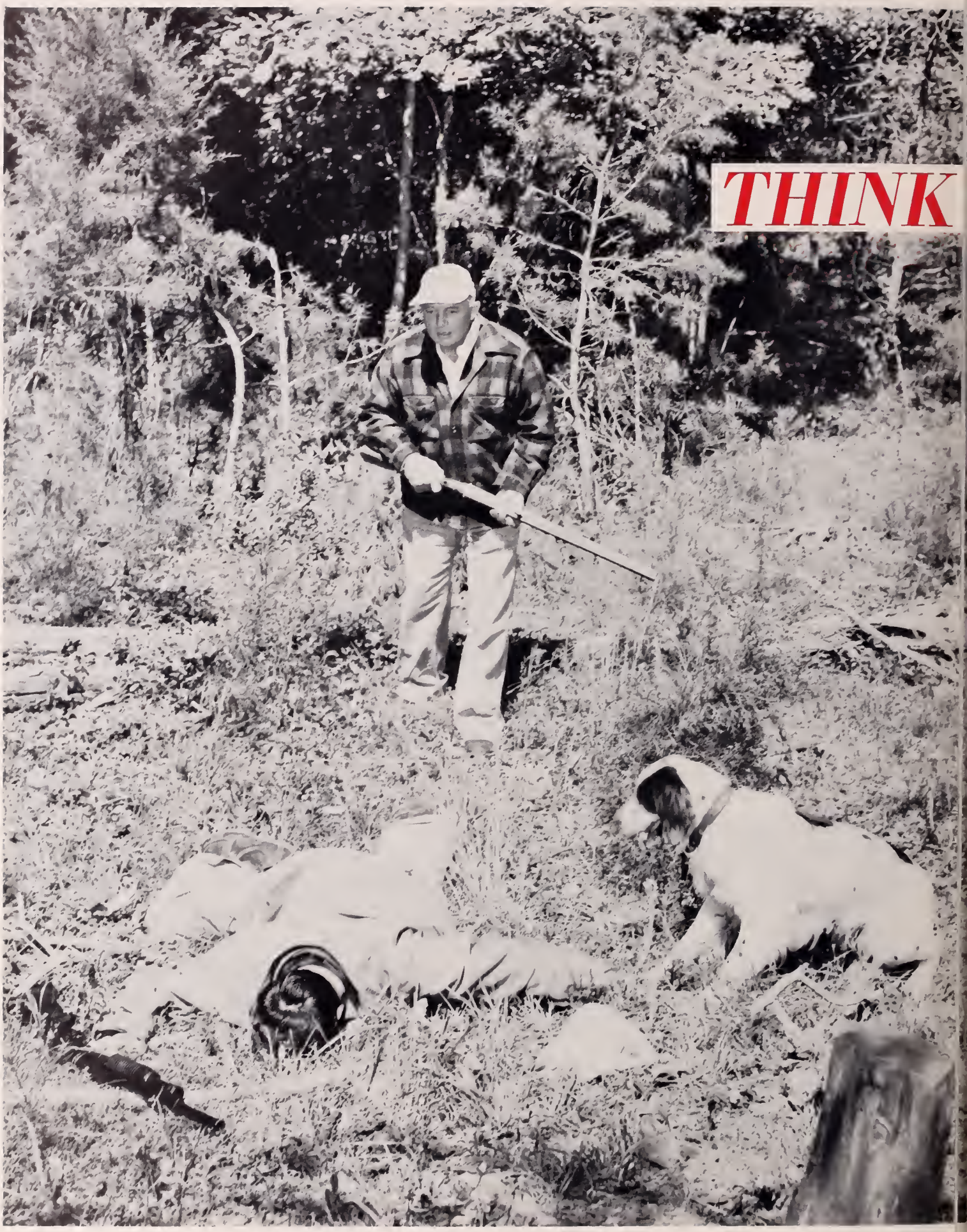
The bald eagle is not holding its own. In 1946 Broley banded young eagles in Florida. In this same area in the spring of 1952 he found only 20 young birds. Too much building, too many people and bad weather conditions are upsetting the nesting of the bald eagle, our national emblem. More protection must be given this fine bird, not only here, but in Alaska, too. The bounty paid for killing an eagle must be taken off. We do not want it to join the ranks of the disappearing birds.

[Since this article was written, the federal government extended protection to the bald eagle in Alaska. The regulation, recommended by the Fish and Wildlife Service and made official by Secretary Chapman by virtue of his authority under the Alaska Game Law, reads as follows: "No open season. These birds may be killed only when committing damage to fishes, other wildlife, domestic birds and animals. No carcass or any part including feathers of birds so taken, may be possessed or transported for any purpose."

Bald eagles in the United States have been protected by law since 1940. In Alaska, however, where this species is more abundant, little or no protection has been provided.

Since these birds are said to be predatory, there has been a bounty on them in Alaska where damage to fishes, other birds, and animals by the eagles has been claimed.

At its sessions in February of this year the Alaska Game Commission, recognizing the need for conservation measures, recommended that the bounty on these birds be discontinued.—Ed.]


THINK

before you shoot

By ROBERT R. BOWERS

Commission photo by Kesteloo

HOW MANY Virginia hunters will be killed this season? How many will be maimed or disfigured for life? How many field accidents will we have? If the trend holds, the Commonwealth can expect some 30 hunters to be victims of their gunning sport again this season. The fact that this represents unnecessary loss of human life and suffering is bad enough but what is even more tragic is the fact that most of these accidents could have been prevented.

When concentrations of hunters go into the fields with lethal weapons some persons are bound to get hurt, even killed. Just as with drivers of automobiles, the law of averages sooner or later catches up with some gunners. But just as with automobile accidents, 95 per cent of our field tragedies could be prevented if more attention were given to thinking and better judgment.

Records show that last season some 350,000 Virginia hunters took to the out-of-doors in the pursuit of game. Hopes were high for a record kill, and gunners were not disappointed. When the smoke had cleared and guns were put away, the average hunter could look back and see that the 1951-52 hunting season had been bountiful. But the kill of game alone did not hold the spotlight. When the season came to an end and all reports were in, figures showed that hunters, along with deer, bear and turkey, ranked high on the list of kills and cripples.

The season showed 28 hunting casualties: 15 wounded, 13 killed. This was 9 more than what occurred in either of the two previous seasons. While tragic enough, to be sure, the figures were not alarming when we consider that this represents only 1 casualty out of about 10,000 hunters; and, we must remember that hunters are increasing yearly. What is significant is that these accidents could have been prevented had there been more thought and better judgment on the part of the hunters.

Let's look at the casualty figures a little closer. Of the 28 accidents that occurred there was conceivable reason for perhaps 3. The cases here were victims of riccocheting or stray bullets. No doubt these might be called unavoidable. All the others, however, were due to pure carelessness, poor judgment or just plain stupidity. Here's what the records show: 5 casualties attributed to careless gun handling; 6 due to accidental gun discharge; 4 showed victim getting into the line of fire; 3 mistaken for game; 2 due to clubbing game; 1 man shot by unknown shooter; and, lastly, 2 hunters were drowned when their boat capsized. From these causes it becomes obvious that most of the accidents could have been prevented had there been some clear thinking on the part of the shooter or victim or both.

A careful study of last year's accidents shows that youth played an important role in hunting accidents. Seventeen of the victims were over the age of what we might choose to call adulthood. Yet 11 of the victims were under 21 years of age, a very significant factor indeed when we consider how much experience has to do with gun safety in the field. Obviously, persons with more age, more training, feel the responsibility of gun safety more than the young, a situation which only shows that youth training in gun safety is much needed.

We can go on delving deeper and deeper into the statistics on hand and attempt to arrive at some kind of a logical conclusion. However, statistics are no better than the accuracy of those who do the reporting and much has yet to be learned about the problem of outdoor safety before any long-range program of training and education can be recommended.

The Commission of Game and Inland Fisheries is trying to take a reasonable approach to the whole hunter-safety question, without going too far on a limb either way. A general safety education program has been underway for a number of years and, while this alone may not be the complete answer, it appears to be a step in the right direction. Each year hundreds of thousands of safety posters are distributed throughout the state cautioning the hunters to be careful with firearms. The excellent safety film *Making of a Shooter* is extensively being shown to hunters and the general public. Many thousands of striking posters are distributed annually cautioning the gunner to be careful with his gun in the field. During the course of the year county game wardens, conservation officers and other officials of the Commission preach the question of safety with firearms.

However, the problem of gunner safety is much bigger than any training and educational program that can be conducted by the Game Commission. The problem lies squarely on the shoulders of the citizenry of the Commonwealth. Until parents feel the full responsibility of training their youngsters in gun safety or see to it that training is given to them by competent instructors, until schools and clubs and organized gun associations put on a real earnest drive to make every single gunner and potential gunner 100 per cent safety conscious, little advancement can be made.

Much is said of the dangers of the rifle and the shotgun. Arguments frequently ensue from dusk till dawn concerning the relative dangers of each. But as with cars, it isn't the mechanism that is dangerous but the person behind it. A gun left alone has never hurt anyone. It becomes dangerous only when it is taken into the hands of an irresponsible person. If every hunter can be made to realize at all times that he carries a death-dealing weapon in his hands, if he will only remind himself constantly of the 10 rules of safety and hesitate and think before he shoots, he will be of little danger to himself, to his family or his fellow-hunters.

In an attempt to find out where Virginia stands among other states in her hunting casualty list, a safety survey was conducted by the Commission seeking accident data from the 48 states. Of the 47 inquiries sent out only 38 responded. Twenty-seven states returned reports which

(Continued on page 22)

YOUR New GAME WARDEN

Friend, Conservationist, Public Servant and Guardian of Wildlife

By

WEBB MIDYETTE

Commission photo by Kesteloo

SINCE THE BEGINNING OF TIME man has been instinctively a killer. We are told in Holy Writ that he was created in the image of his Creator, and that he should have dominion over the creatures, fishes and fowl. We ponder and ask ourselves if man has reflected "The Image."

When Adam and Eve fell heir to the lush Garden of Eden, contented animals browsed on its breast. Fishes teemed in its babbling brooks and rivers, and fowl found full feeding, nesting and resting refuge. The essentials for life and reproduction were plentiful. Yet, until the "Mechanical Age," we are told that man went in pursuit of game and fish, not for recreation, but for food and clothing. To his credit he only took what he and his tribe or clan found necessary.

But in the last 100 years man has forced wildlife to change its habits and habitats; to live differently and to readjust to changing environments, or else to perish. With thoughtless progress man has struggled for wealth and lost out in his God-given heritage, his natural resources—forest, field, fur, fin, and feather. Man has dominated, rather than had dominion over; he has decimated, brought about by seeking out things only for his selfish interest, rather than for the common good. Man has given little thought to the future.

Yet, we have not quite lost out. Men like Gifford Pinchot, founding father of forestry and former governor of Pennsylvania, and Theodore Roosevelt, president of the United States at the turn of the century, caused both federal and state governments to be concerned over our natural resources. Men like Ding Darling, teaching the story in pictures, and Leopold and Stoddard found the way to repair and restore wildlife.

Through the efforts of these men and many other conservationists and legislators, wildlife was designated the property of the people to be held in trust by the state. Virginia found it necessary to set up the present Commission of Game and Inland Fisheries through legislation passed by the representatives of every hamlet, town, city and the 100 counties throughout the Commonwealth. As trustee of our wildlife resources the Commission established a system of custodians, called by law "game wardens," to protect these resources for the good of all the people.

Your game wardens are organized by law to be enforcement officers primarily. Yet, your humble servants of the Commonwealth are more than that. It is incumbent upon them not only to enforce the laws and regulations, but to act as stewards of wildlife, protectors of landowners' rights on land, and their riparian rights on water.

The game wardens have the responsibility of enforcing the dog laws. As custodian of the farmer's livestock and poultry, it is his duty to kill all known stray dogs and to return all lost or stolen dogs to the owners. Loose-running dogs are a menace to domestic animals and wildlife.

The warden must assist in the liberation of game animals and fish. He assists technicians to make locations and in getting easements from the landowners for such distributions or plantings.

He is charged with the protection of wildlife in the 1,500,000 acres of national forest lands in the state—1,000,000 in George Washington Forest and 500,000 in Jefferson Forest—and has the fullest co-operation with the U. S. Forest Service in this capacity.

The game warden is a public relations officer, striving for co-operation between the state, as trustee of wildlife, and the people. He is an educator, spreading the gospel of conservation and indoctrinating the public in wise-use consciousness. All the citizens of the Commonwealth shall have a part in the protection of our wildlife resources and to this end the warden develops an amiable relationship with landowners, schools, game and fish protective associations, and members of the General Assembly.

The day was when I first came with the Commission, that if a game warden came away from a school house or a public meeting the first thought in one's mind was, "Wonder who's in trouble?" That has changed. Today when you see the game warden in public places, he is there to talk to children, or agriculture groups or sportsmen. He is arranging for programs with wildlife technicians, for public service lectures, for wildlife motion pictures. Through his attitude of helpfulness and close co-operation, he wins the respect of the public and its aid in the rehabilitation of the state's wildlife resources.

To better perform his manifold duties as wildlife custodian, each warden is required to attend the Game Warden Training School held each summer for one week at Virginia Polytechnic Institute, Blacksburg. Here he is schooled rigidly in the fundamentals of law enforcement procedure, public relations, in the skill of handling firearms, first aid. He has courses in soil erosion, soil improvement, food patch plantings and location spotting for wildlife habitat.

Thus your game warden can be in a better position to assist and expand any phase of his custodial duties. The public, particularly the farmers, is accepting the knowledge and training gained and is giving assistance in a greater degree than ever before. There is a co-operative relationship between warden and landowner. The public realizes that it is not the game warden's job to prohibit the taking of wildlife, but rather to regulate it, so that Virginians in years to come will benefit equally well from our furred, finned, and feathered friends.

Your game warden has been versed on the laws and regulations in order to apply them without fear or favor. He is ever mindful of the power invested in his oath of office to preserve the game, livestock, and poultry and to preserve the peace and dignity of the Commonwealth.

It is not my purpose to give you the impression that law enforcement is not essential in the protection of our wildlife, for the laws and regulations have to be enforced; this is our big job. This is our duty. You, the public, demand it and it is your legislative right to expect it. The laws are reasonable, for we must not forget that in European countries the game belongs to the landlord and to hunt one must be his guest or purchase hunting and fishing privileges at a price beyond the average man's income. But here in America wildlife belongs to the state and is hunted, killed or taken as the people themselves direct. *(Continued on page 22)*

YOUR NEW GAME WARDEN

(*Continued from page 21*)

The force of wardens is ever alert as game and fish protectors. We cannot apprehend or detect all violators. Therefore, it is our urgent request and belief that all citizens can and should help apprehend the violator. It can be done by reporting such infractions of game and fish laws to the wardens, that the courts may apply the appropriate punishments, which should bring about a more strict adherence to such laws.

The main objective of game laws is the assurance of a natural wildlife supply for public harvest and a sufficient supply for breeding stock. And only through co-operation on the part of the state and the people can this objective be attained. When all of us appreciate the fact that the conservation of all natural resources is an individual responsibility, we will be on our way. We have a big job, but it can be done with your co-operation. You—our public—can be a big help.

"JOE BEAVER" By Ed Nofziger

"Freedom from want in the future depends upon our conservation practices today"

Photo courtesy Forest Service, U.S.D.A

THE POTOMAC

(*Continued from page 9*)

the stream accumulated a deep, spongy layer of duff. This organic layer not only conserved water, it released, slowly but steadily, a constant supply of the life-giving minerals—calcium, magnesium, potassium, phosphorus, and others—which fish must have. After destructive lumbering, with its attendant fires, this duff layer was often burned or washed away in a single year. Minerals necessary to fish growth are simply not finding their way into streams in sufficient quantities. It may be that bass are growing too slowly to keep up with the angler's demands.

There are some hopeful signs on the horizon. Much of the Potomac headwaters country is now within the George Washington and the Monongahela National Forests. Trees are growing, and with good management we may expect improvement in the water and food supplies. An interstate commission is actively concerning itself with the Potomac Basin, looking toward better soil and water conservation, more reforestation, and increased game and fish resources. Through a co-operative arrangement, the U. S. Fish and Wildlife Service and the West Virginia Conservation Commission are conducting on Potomac waters what may be the most intensive study of black bass ever undertaken. Virginia is active in restocking its streams with hatchery-reared bass. Improvement will be slow, but it should surely come.

Through the accidents of history, Virginia shares the Potomac with its neighbors, Maryland and West Virginia. Citizens of these three states must make common cause in preserving the scenic, historic, and recreational values of this great river. Washington loved it, built his home beside it, and chose it to be the site of the nation's capital. It is a portion of our American heritage.

THINK BEFORE YOU SHOOT

(*Continued from page 19*)

could be clearly analyzed, showing that they had very little if anything in the way of a safety program. Among the 27 states whose figures can be intelligently interpreted Virginia ranked tenth in the number of accidents during 1951-52, and tenth in the number of hunting licenses sold.

The states which are plagued the most by hunter casualties are mostly in the north where throngs of hunters fan out from large cities and concentrate on dwindling wildlife habitat. The south, generally speaking, has fewer accidents in total, but we have more land to hunt and fewer hunters.

Reports show that some states are going in strong for a hunter-safety training and educational program, others are doing very little. Nearly all, however, agree that a serious problem exists and something more should be done. Opinions differ on the value of certain educational media. Posters are effective but are only as good as the audience they reach. Movies are fine, but again only reach a limited audience. Nearly all agree that every adult safety education measure should be based upon the "reminder" aspect. Movies, talks, news releases, magazine articles, safety meetings all follow this general pattern, are all aimed at pounding home the message, "Take care, think before you shoot!"

A significant factor in gunning accidents is the use of alcohol. Cliff Morrow, writing in the October *Ohio Conservation Bulletin*, stated that nation-wide about one-fifth of the gunning accidents could be attributed in one way or another to the alcohol factor. He stated that in all cases the main underlying factor involved was one that could not be legislated against—sheer stupidity. In this connection, it is interesting to know that Virginia, during the last session of the General Assembly, enacted a law prohibiting hunting while under the influence of intoxicants of any kind. This new law will be enforced both by sheriffs and game wardens alike. Obviously, it is a step in the right direction and should help considerably in keeping down future accidents where the question of alcohol use is involved.

When the whole problem is viewed in its stark reality we must agree that it is only a better trained and better educated public that can bring about a change. Until safety becomes an inner consciousness with every man, woman and child who handles a gun, accidents will continue to occur. Only by thorough gun training, constant safety education, knowing the 10 rules of gun safety, and always *thinking* before we shoot can we ever hope to cut down on the severe annual accident rate.

CO-OPERATIVE BUDGET ON NATIONAL FORESTS APPROVED

The budget for the co-operative wildlife program on Virginia's two national forests has been approved by both the Commission and the U. S. Forest Service.

Under the Co-operative Agreement, the budget for wildlife activities on the forests for the present fiscal year was approved at a conference with A. H. Anderson and George Mullin, supervisors of the George Washington and Thomas Jefferson national forests, respectively.

The amount of funds in the wildlife development and management program on the George Washington Forest called for expenditures of $75,694.60, and on the Jefferson $60,867.00 for a total of $136,561.60.

GAME MANAGER SCHOOL HELD

The annual Game Managers Training Meeting for personnel of the George Washington National Forest was held in September at Camp May Flather, the Girl Scout Camp located on North River in Augusta County.

Study sessions involved instruction and training on up-to-date game management procedures and personnel performance. The program for the three-day meeting also included the showing of wildlife motion pictures, shooting match and show-me trip.

Commission personnel present at the school included several supervising wardens and conservation officers. Forest personnel included game managers, ranger wildlife assistants, and rangers.

STATE GAME FARM HAS RECORD TURKEY PRODUCTION

Dennis Hart, manager of the Cumberland Game Farm, has turned out a bumper crop of turkeys this year. The record production of approximately 4,000 birds almost doubles last year's production.

From the 4,000 birds, releases have been made in most of the counties closed to turkey hunting. In addition, several hundred birds have been released in counties open to hunting, but these releases were made in protected localities where the birds will have a good chance to come through the hunting season and produce brood stock next spring.

Walter Hampton (right), game warden for Grayson County, receives shipment of wild turkeys for stocking in southwest Virginia

Commission photo by Kesteloo

As was customary in former years, a large number of birds are retained at the Game Farm to provide birds for spring releases and brood stock for next year's production.

TURKEYS SPORT FALL COLORS

Hunters who see yellow-legged turkeys in the woods this season need not fear an invasion of Martian wildlife, says Chester F. Phelps, chief of the Commission's game division. The birds are merely subjects of Commission field observations.

These turkeys, on experimental release, have had their legs painted with a penetrating yellow dye to aid Commission game biologists in determining the birds' survival success. The statewide experimental study was initiated by Robert D. McDowell, graduate student at V. P. I.'s Co-operative Wildlife Research Unit.

TECHNICIANS EVALUATE WILDLIFE PLANTINGS

The Commission's evaluation program of wildlife plantings has received the go-ahead signal.

Under the leadership of C. H. "Kit" Shaffer, the Commission's farm game project leader, all wildlife plantings made during 1951-52 are receiving follow-up inspection to evaluate wildlife utilization and the degree of growth and maintenance of the plantings. These plantings were made in co-operation with nearly 4,000 Virginia farmers.

It is intended that each year a follow-up procedure will be carried out in an effort to evaluate and prescribe farm game habitat improvements.

The evaluations are being made by Shaffer and a force of five farm game technicians: Harold Little, George Gehrken, Bill Blackwell, Herman Tuttle, and Julian Harvey.

Commission personnel shown looking over the results of last year's wildlife food plantings

Commission photo by Kesteloo

NEW DISNEY FILM

Walt Disney has again produced an excellent wildlife motion picture. His "Water Birds" film is an effective combination of wildlife motion and sound and fine music. The major part of the photography is the work of Audubon Screen Tour lecturers.

Commission personnel who have viewed the picture consider "Water Birds" an outstanding wildlife film and feel that those interested in wildlife will not want to miss seeing it.

TREE SEED PACKETS GIVEN TO HUNTERS

The 1952 General Assembly hat called on Virginia's hunters to assiss in reseeding their hunting grounds, declares George W. Dean, state forester. At the last session of the General Assembly a joint House-Senate resolution sponsored by Delegate Tayloe Murphy of Lancaster and Richmond counties was passed which requires that the Virginia Forest Service should prepare and the sellers of hunting licenses should distribute a small packet of pine seeds with each purchase of a hunting license.

Dean says that from 10 to 20 pine seed, species of pine depending upon the area in which license is purchased, are contained in a small glassine envelope with instructions for planting printed on the cover.

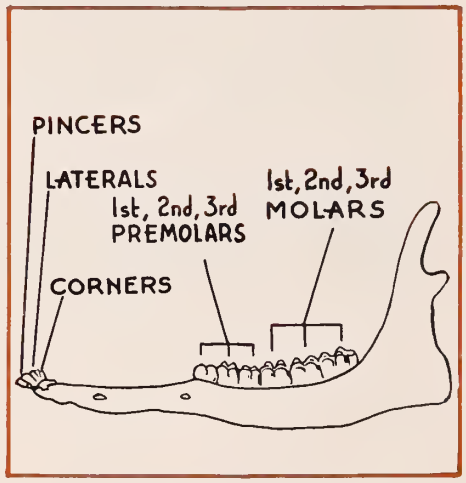
The hunters from the mountainous sections will be planting white pine, the Piedmont hunters will be planting shortleaf pine, and the Tidewater hunters loblolly.

"Here is an opportunity for city, urban and country dwellers to lend a hand to the tremendous job of reforesting the old hunting grounds," says the state forester. "Also, it is a chance for the hunter to show his appreciation to the landowner, upon whose land he hunts, by helping to set out a future timber crop. Everyone will benefit from this project.

"Perhaps, too, after planting the 10 to 20 seed more of us will be drawn closer to the miracles of nature and will have a deeper understanding of the value of the forest land," says Dean. "Each hunter will probably feel that he has a personal interest in 10 to 20 young trees and will caution his neighbor to be more careful with fire."

WANTED: DEER JAWS

Deer hunters, would you like to know the age of your kill? Send your deer jaw to the Game Commission offices in Richmond this season for aging.



The jaw of a deer, like those wanted by the Commission for aging purposes

Only the lower jaw, either right or left, is needed. Hunters are urged that the following information accompany each jaw: hunter's name and address, county where deer is killed and date of kill, and, if a buck, the total number of points.

The jaws will be used to determine the age composition of various deer herds in the state and also to learn whether the harvesting is in correct proportion.

VANISHING BIRDS LISTED

Three North American birds are on the list of 13 birds listed as vanishing species by the International Union for the Protection of Nature, according to an announcement by the Union's Commission on Public Information. These are the California condor, the Eskimo curlew and the North American whooping crane.

Other threatened species are the Arabian ostrich, Hawaiian goose, New Caledonian kagou, Indian pink-headed duck, Australian ground parakeet, Laysan duck, Marianas mallard, Cuban ivory-billed woodpecker, Bermuda petrel and Marianas megapode.

I. W. L. PURCHASES WILDLIFE CHARTS

Wildlife color charts, available through the Commission's education division, are becoming popular materials in Virginia classrooms.

The Rockingham - Harrisonburg Chapter of the Izaak Walton League has purchased 40 sets of bird and mammal charts for distribution to the county and city schools in that area.

This is only one of the many youth education projects of the Izaak Walton League in Virginia. Outstanding among the state projects is their co-operation with the Commission of Game and Inland Fisheries as co-sponsors of the annual Wildlife Essay Contest.

DON'T USE HIGHWAY MARKERS AS TARGETS

One of the worst advertisements a state or community can have is a succession of highway markers that have been defaced by bullets or shot from the guns of careless or thoughtless hunters.

"This sort of thing should be strongly discouraged by every thinking sportsman," cautions Henry P. Davis, public relations manager, Remington Arms Company, Inc.

"Not only does it give visiting motorists an unpleasant impression of a community and its residents, but it is a constant deterrent to good farmer-sportsman relations. The farmer sees a highway sign shot up by practicing hunters. He immediately starts thinking in terms of his own property and becomes uneasy concerning the possible conduct of such an individual while hunting on his own land. As a consequence more 'Posted—No Hunting' signs appear around the countryside, and a few trigger-happy guys have spoiled the sport of a lot of gentlemanly sportsmen. The fellow who shoots at highway signs may not realize it, but he is throwing his money away in two directions: he is wasting his ammunition and is ruining an expensive marker that his own taxes helped purchase. Above all other considerations, however, it is an extremely dangerous practice that may lead to unintentional homicide."

WHOOPING CRANES BREEDING GROUND FOUND

Two U. S. Fish and Wildlife Service biologists apparently have discovered the breeding ground of the almost extinct whooping crane in the marshes of the Great Slave Lake in Canada. The location of the breeding grounds of these great birds, of which only about 30 remain in North America, has long puzzled ornithologists. Robert Smith, of Medford, Oregon, and Everett L. Sutton, of Aberdeen, South Dakota, made the discovery. The birds winter each year on the Texas coast, particularly at the Aransas National Wildlife Refuge.

ARE YOU A SPORTSMAN?

Someone estimated once that only about five per cent of the so-called "sportsmen" of this nation are deserving of the term in its true meaning. What would *you* have done in a situation similar to the following?

State game ranger L. E. Crawford, while checking dove hunting areas near Lawton, Oklahoma, recently came upon attorney Charles Bledsoe and his 16-year-old son, Charles, Jr., of Lawton, repairing a damaged farm fence through which they had seen other hunters driving their automobile a few moments before.

Crawford learned that the attorney and his son had permission of the farmer to hunt on his land, while the other hunters did not. The ranger also learned that Bledsoe always carries hammer, pliers, and staples to repair fences when he finds them damaged.

"I didn't want the farmer to think we cut his fence," Bledsoe said, "and thereby probably gain his condemnation of all hunters. Besides, I want my son to learn good sportsmanship and courtesy in the field."

"That act of good sportsmanship cost them their hunting that evening," Crawford commented, "because it took them an hour to repair the damage the other hunters had done. But the Bledsoes will probably be welcome on that farm, and anywhere else they ask permission to hunt in the future."

Are you a real sportsman?

HERE'S A GOOD SHELL GAME

How to keep warm in a duck blind is a problem that has confronted, and confounded, all waterfowl hunters. Charlie Grisham, well known field representative of Remington Arms Company, Inc., comes up with a novel idea that will be worth remembering.

Says Grisham, "Those empty shotgun shells that clutter up every duck blind can be put to good use when the weather is cold and the ducks are not moving. With a sharp knife, slice the shell body down toward the brass end several times, making several strips about ¼ inch wide. Twist the ends for easier lighting and hold a match to the shell. Set it down and it will burn steadily for about three minutes, giving off an intense flame, without smoke.

"Of course, the wax coating on the pasteboard does the trick, but you will be surprised how much heat a shell handled this way will give off. It's a quick hand warmer and it will help warm the body when carefully passed under your coat. It can heat up a cup of coffee, start fires or burn a hole in your boat if you are not careful."

"What about the fellow who doesn't have a knife?" Grisham was asked.

"Shucks," he replied, " any hunter who doesn't carry a knife of some kind deserves to freeze to death."

THE CROW—AMERICA'S UNRECOGNIZED GAME BIRD?

More extensive crow shooting as a sport could well replace the promiscuous roost bombing now widely practiced in the opinion of Dr. E. E. Good, a member of the Ohio Cooperative Wildlife Research Unit who recently completed a study of the economic status and life history of this controversial bird. The crow is favorably distributed in relation to hunting pressure, and prejudice is the major factor that prevents its more widespread use as a game bird. The crow is alert and not only offers a challenge to the hunter's wing-shooting ability, but its flesh is rewardingly palatable.

The crow, says Dr. Good, must be judged beneficial or harmful to man's interests on a local basis, for its food habits vary widely with the locality, the season, and the availability of food. Crow predation on waterfowl may be especially serious at times in some areas, but its influence on upland game birds is much less. A bulk of their insect diet was found to consist of crop destroying caterpillars, beetles and grasshoppers. Crow control, according to Dr. Good, must always remain a local endeavor since the birds return year after year to the same locality. Because they are migratory to a degree, little effect upon summer populations can be expected from roost bombing carried out in winter. Hunting during the nesting season, when crow predation and crop damage are most serious, is the most effective means of ending local complaints of damage and can provide fine off-season sport to hunters.

Wildlife Questions and Answers

Ques.: What game species are found on the national forest areas?

Ans.: Deer, black bear, wild turkey, ruffed grouse (mountain pheasant), raccoon, squirrels, rabbits, and quail.

Ques.: How many different furbearers are to be found on the national forests?

Ans.: Gray fox, red fox, opassum, wildcat, skunk, raccaon, weasel, and a few mink.

Ques.: What materials are recommended for fall planting for quail?

Ans.: Wheat, rye, vetch, Austrian winter pea and German clover make a gaod combinatian for fall planting. If only a small amount of German clover is used, Japan clover and Korean lespedeza can be sown the following spring. When available in quantity, Japan clover and Korean lespedeza are principal items in the diet af quail during January, February, and March.

Vetch and Austrian winter pea supply an abundance of rich food at the time quail are nesting and are most in need of such food.

Ques.: Is the horned toad a true toad?

Ans.: No, it is a lizard. It does not lay eggs, but gives birth to living yaung.

Ques.: Who is eligible to enter the Wildlife Essay Contest sponsored by the Virginia Commission of Game and Inland Fisheries and the Virginia Division of the Izaak Walton League?

Ans.: All children in Virginia schools, grades 5 thraugh 12, may enter.

Ques.: When was Chincoteague selected as a refuge site and what were the major factors entering into its selection?

Ans.: Purchase af this site far a refuge was appraved by the Migratary Bird Commissian in 1942 and the refuge was formally placed under administration by the U. S. Fish and Wildlife Service in 1945.

Twa things determined the location of the Chincoteague Refuge. Its physical features, combining beaches, dunes, marshes, woodland, and protected waters, furnish ideal waterfawl country. This is the kind of country waterfowl knew befare the white man's civilizatian disturbed the face of the land.

Chincoteague's pasition with relation to the flight lanes of the birds was the second determining factar. It is an important way station on the Atlantic flyway. It is lacated at a strategic point, an area where several of the most heavily traveled lanes af waterfowl traffic converge.

Ques.: Do both the male and female grouse "drum"?

Ans.: The drumming saund is produced anly by the male bird beating the air with his wings and represents the call of the male ta the female. This drumming is not confined to just the breeding seasan but occasionally may be heard during the autumn and winter months.

Ques.: Is it true that a newborn black bear cub weighs less than one pound?

Ans.: Yes, the guinea pig size newborn cubs are unusually small ta have such large parents.

Ques.: How can cranes and herons be distinguished in flight?

Ans.: A crane extends its neck ta its full length in flight, whereas, a heron crooks its neck. The heads of both are more or less bare. The crane's plumage is dense and compact, whereas, the heron's plumage is rather loose.

Ques.: When were dog licenses first required in Virginia?

Ans.: On March 11, 1916 the General Assembly enacted "That the board of supervisors of Powhatan caunty may, whenever they think proper for the enfarcement of any dog law, prescribe a form of collar with a license tag for each year, and require that all dogs on which the tax has been paid shall wear the said collar and license tag."

"There seems to be some difference of opinion here"

On March 22, 1920 it became campulsory, by Act af the General Assembly, that dogs over faur manths af age be licensed. License tax was levied at one dollar for males and spayed females, and three dollars for unspayed females.

Ques.: What wildlife planting materials are available from the Commission of Game and Inland Fisheries to Virginia landowners and sportsmen? For what purpose is each best suited?

Ans.: *Shrab lespedeza plants:* This perennial shrub is best suited as a waodland barder and will furnish abundant seed as well as cover far quail. Some seed are usually praduced the first year when a border is established by means of plants.

Shrub lespedeza seed: A limited quantity of seed is available for distribution. Provides an efficient method of establishing a wildlife border but requires a well prepared seed bed and very careful seeding to be successful. Normally, seed are not produced until the year following planting.

Sericea lespedeza: Planted as a barder along edges af fields next to woodlands alone or in combination with shrub lespedeza. Will produce nesting cover for quail and rabbits. Can be used as a turn row for farm equipment.

Wildlife mixture: A mixture of beneficial annual seed which is eaten readily by quail, turkey and deer. Composed of soya beans, cow peas, millet, milo, rape, Karean lespedeza, etc.

Milo maize: An annual plant similar to sorghum which produces a heavy crop of seed which is utilized by quail, wild turkey, rabbits and deer.

Ques.: Where should application be made for planting materials? Is there any charge?

Ans.: Applications can be made to the local soil conservationist, county agricultural agent, or caunty game warden or district game technician, who will see that the materials are delivered in time far planting this spring.

There is na charge. All the Commission asks of the landowner is that the seed and plants are planted and cared for in such a way as ta praduce the maximum benefits to wildlife.

Ques.: Is the Shenandoah National Park included in the 1,500,000 acres of national forest land in Virginia?

Ans.: No, the national park and the national forests are separate and distinct areas. The natianal park areas are distinctive in such essentials as the possession of rare scenic beauty, autstanding natural phenamena, or sites preeminent in their histaric or prehistoric significance. They are dedicated to the edification and enjoyment of the people and are wildlife sanctuaries. No hunting is permitted. Fishing in season with artificial bait is permitted.

The national forests are large areas where forestry practices provide for the protection, perpetuation, and orderly use of timber, forage, water, game and ather natural resources. The abjective is the best use of the many resources af the farests in the interest of the public welfare.

The natianal parks are administered by the National Park Service, a bureau in the Department af the Interiar, while the national farests are managed by the U. S. Forest Service, a bureau in the Department of Agriculture.

Ques.: Who has jurisdiction over game regulations on Virginia's national forests?

Ans.: Game laws applying ta this area are imposed by the Commission of Game and Inland Fisheries and they can be found in the *Game, Inland Fish and Dog Laws of Virginia* incorparated in the regular laws cavering the variaus counties. Any special regulations applying only to the natianal forest areas will be found in the natianal forest section af the same booklet, which can be abtained fram the Commissian af Game and Inland Fisheries, Richmand; the Gearge Washingtan National Farest, Harrisonburg; the Jefferson National Farest, Roanake, or fram any caunty game warden.

Ques.: For what is the money collected from national forest stamps used?

Ans.: The funds callected from the sale af these stamps are used only for the develapment, stocking, and pratection of wildlife on the national farests.

Treat every gun with the respect due a loaded gun. These men are violating this rule

Never climb a tree or fence with a loaded gun. Lay the gun down or unload it before crossing a fence or climbing

HOW TO SAVE YOUR LIFE

Depicted here are five common causes of hunting accidents. These are among some of the most common violations of safety rules in the field.

Look closely! How guilty are you of these breaches of safety?

If your response is "not guilty" then you are a credit to that great fraternity of sportsmen who try to be really careful with a gun.

Let's strive for a safe hunting season this year. The life you save may be your own.

Commission photos by Kesteloo

Always be sure that the barrel and action of your gun are clear of obstructions. Shown above is one way obstructions happen

Do not mix gunpowder and alcohol. Five per cent of all hunting accidents come from such a mixture

Never leave your gun unattended or leaning up against anything unless you are positive it is unloaded

Announcing the 6th ANNUAL Wildlife Essay Contest

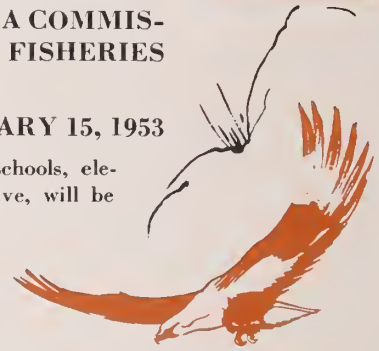
$1,000.00 in Prizes

SPONSORED BY: THE VIRGINIA DIVISION OF THE IZAAK WALTON LEAGUE OF AMERICA AND THE VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES

DATE:
OCTOBER 1, 1952, TO FEBRUARY 15, 1953

SCHOOLS ELIGIBLE: Only Virginia schools, elementary and high, grades 5-12 inclusive, will be eligible to enter this contest.

SUBJECT: The Value of Soils, Woods, Waters and Wildlife to Me and My Community.



Contest Rules

1. Essays must be submitted through the schools participating and each essay must contain a minimum of 500 words.
2. Each entry should bear the following information in the upper right-hand corner of each essay: name, sex, age, grade, school address, school, county, and teacher. Without all of the above information, essays will be disqualified.
3. Students of Virginia schools, grades 5-12 inclusive, will be eligible to enter this contest.
4. All essays must be mailed first class, PREPAID TO ESSAY CONTEST HEADQUARTERS, Box 1642, Richmond, Virginia. Teachers must submit all entries. However, they are requested to indicate their selections of the best essays if they so desire. Essays should be separated by grades with the number of essays in each bundle.
5. No papers will be returned and the decision of the judges will be final. Each sponsoring organization will appoint three conservationists to serve on the judging committee.
6. Previous grand prize winners will not be eligible for top awards.
7. Judging of essays will be based 50 per cent on coverage and understanding of the subject, 30 per cent on originality and presentation, and 20 per cent on effectiveness of presentation, spelling, punctuation and grammatical correctness.

57 PRIZES

Eight grand prizes, $50 each, one for each grade, totaling	$400
Eight second prizes, $25 each, one for each grade, totaling	$200
Eight third prizes, $15 each, one for each grade, totaling	$120
Sixteen honorable mention prizes, $10 each, two for each grade, totaling	$160
Sixteen special mention prizes, $5 each, two for each grade, totaling	$80
One school prize, best response	$40
Grand total	**$1,000**

There will be seven prizes in each of the eight competing grades. Grand prize winners will come to Richmond as guests of the sponsors to receive their awards. Others will be given awards in the schools. The school having the best response will be given a special $40 prize for its athletic or general purpose fund.

200 certificates of merit will be awarded in addition to the money grand prizes.

TEACHERS: Enter your school now! Write for free reference material today!